

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended): A multilayer ~~Multilayer~~ structure based on polyamides and graft copolymers having polyamide blocks, said structure comprising, in this order:

a) a first layer (1) comprising ~~formed from~~ a polyamide (A) or else a polyamide (A)/polyolefin (B) blend having a polyamide matrix;

b) optionally, a tie layer (2a);

c) a layer (2) comprising ~~based on~~ a graft copolymer, said graft copolymer comprising having a polyolefin backbone functionalized by an unsaturated monomer (X) and polyamide blocks, formed from a polyolefin backbone and from at least one polyamide graft, said graft copolymer being obtained by reaction between a polyamide having an amine end group and the residue of the unsaturated monomer (X) having a functional group capable of reacting with amine end group of the polyamide, said unsaturated monomer (X) being attached by grafting or copolymerization via its double bond; in which:

- ~~the grafts are attached to the backbone by the residues of an unsaturated monomer (X) having a functional group capable of reacting with a polyamide having an amine end group;~~
- ~~the residues of the unsaturated monomer (X) are attached to the backbone by grafting or copolymerization via its double bond;~~

the layers (1), (2a) and (2) being successive and adhering to one another in their respective contact region.

2. (Currently Amended): A structure ~~Structure~~ according to Claim 1, further comprising a polyamide or a polyolefin layer (3), superposed on the layer (2), and optionally further comprising a ~~an optional~~ tie layer (3a) being placed between the layer (2) and the layer (3).

ATO-CM-349

3. (Currently Amended): ~~A structure~~ Structure according to claim 1, wherein said ~~in which the~~ polyolefin backbone comprises an ethylene/alkyl(meth)acrylate copolymer.

4. (Currently Amended): ~~A structure~~ Structure according to claim 1, in which X is an unsaturated carboxylic acid anhydride.

5. (Currently Amended): ~~A structure~~ Structure according to claim 1, wherein said ~~in which the~~ polyolefin backbone contains ~~containing~~ X, and X is chosen from ethylene/maleic anhydride copolymers and ethylene/alkyl(meth)acrylate/maleic anhydride copolymers.

6. (Currently Amended): ~~A Tanks, containers, bottles, multilayer films and tubes~~ Structure according to claim 1, wherein said structure is in the form of a tank, container, bottle, multilayer film, or tube.

7. (Currently Amended): ~~A structure Tanks, containers, bottles, multilayer films and tubes~~ according to Claim 6 in which the layer (2) of graft copolymers having polyamide blocks or the layer (3) forms the inner layer in contact with the stored or transported fluid.

8. (Currently Amended): ~~A Tubes for cooling circuits of internal combustion engines, formed from the~~ Structure according to Claim 1, wherein said structure is in the form of a tube for use in a cooling circuit for an internal combustion engine in which the layer (2) of graft copolymers having polyamide blocks or the layer (3) forms the inner layer in contact with the transported fluid.

9. (Currently Amended): A material in the shape of a tank, container, bottle, film or tube, wherein said material comprises ~~Tanks, containers, bottles, films and tubes formed from the material based on a~~ graft copolymer having polyamide blocks, consisting of a polyolefin backbone and at least one polyamide graft, ~~in which:~~

- ~~the grafts are attached to the backbone by the residues of an unsaturated monomer (X) having a functional group capable of reacting with a polyamide having an amine end group;~~
- ~~the residues of the unsaturated monomer (X) are attached to the backbone by grafting or copolymerization via its double bond~~

said graft copolymer comprising a polyolefin backbone functionalized by an unsaturated monomer (X) and at least one polyamide graft, said graft copolymer being obtained by reaction between a polyamide having an amine end group and the residue of the unsaturated monomer (X) having a functional group capable of reacting with amine end group of the polyamide, said unsaturated monomer (X) being attached by grafting or copolymerization via its double bond.

10. (Previously Presented): A multilayer structure according to Claim 1, comprising said tie layer (2a).

11. (Currently Amended): A structure according to claim 2, comprising said tie layer (3a).

12. (Currently Amended): A structure according to claim 10, further comprising a polyamide or of a polyolefin layer (3) superposed on the layer (2) and a tie layer (3a) being placed between the layer (2) and layer (3).

13. (Previously Presented): A structure according to claim 1, wherein said the flexible polyolefin backbone is a polyolefin homopolymer or copolymer.

14. (Currently Amended): A structure according to claim 1, wherein X is an unsaturated epoxide, an unsaturated carboxylic acid anhydride, an aliphatic glycidyl ester, an aliphatic glycidyl ether, an alicyclic glycidyl ester or an alicyclic alieyel glycidyl ether.

15. (Previously Presented): A structure according to claim 1, wherein the first layer (1) is formed from a polyamide (A)/polyolefin (B) blend having a polyamide matrix.

16. (Previously Presented): A structure according to claim 1, wherein said first layer is formed from PA-6/12, PA-6/6,6, PA-6, PA-6,6, PA-11 or PA-12.

17. (Previously Presented): A structure according to claim 10, wherein said tie layer comprises a functionalized polyolefin or a copolyamide.

18 (Currently Amended): A structure according to claim 11, wherein said tie layer between the layer (2) and the layer (3) comprises a functionalized polyolefin or a copolyamide.

19. (Currently Amended): A method comprising fabricating a tank, container, bottle, multilayer film, or tube, said method ~~tanks, containers, bottles, multilayer films or tubes~~, comprising shaping a multilayer the structure according to claim 2 such that the layer (3) forms the inner layer.

20. (Currently Amended): A method of fabricating a tube ~~tubes~~ for use in a cooling circuit ~~circuits~~ of an internal combustion engine ~~engines~~, said method comprising shaping a multilayer the structure according to claim 2 such that the layer (2) comprises graft copolymers having amide blocks, and either said layer (2) or the layer (3) forms the inner layer of the tube ~~tubes~~.

21. (New): A structure according to claim 1, wherein layer comprises a blend of a polyamide (A) and at least one copolymer having polyamide blocks and polyether blocks.

22. (New): A structure according to claim 15, wherein the proportion of polyamide in the polyamide (A)/polyolefin (B) blend is between 40 and 75% by weight.

23. (New): A structure according to claim 15, wherein the polyolefin (B) comprises:  
(a) a high-density polyethylene, and a blend of a polyethylene (C1) and of a polymer (C2) chosen from elastomers, very low-density polyethylenes and ethylene copolymers, the (C1)/(C2) blend being cografted by an unsaturated carboxylic acid or an unsaturated carboxylic acid

ATOCM-349

anhydride;

(b) polypropylene and a polyolefin resulting from the reaction of a polyamide (C4) with a copolymer (C3) comprising propylene and an unsaturated monomer X, which is grafted or copolymerized;

(c) an EVA, LLDPE, VLDPE or metallocene polyethylene and an ethylene/alkyl (meth)acrylate/maleic anhydride copolymer; or

(d) two functionalized polymers comprising at least 50 mol% of ethylene units and able to react to form a crosslinked phase.